

REMARKS/ARGUMENTS

Favorable reconsideration of this application as presently amended and in light of the following discussion is respectfully submitted.

Claims 2, 3, 5-20, 22, 23, and 25-29 are pending in the present application. Claims 2, 3, 7, 20, and 27 are amended by the present amendment.

In the outstanding Office Action, Claim 7 was rejected under 35 U.S.C. § 102(b) as anticipated by Nakashiba (U.S. Patent No. 5,442,396); Claims 2, 3, 5, 6, 8-20, and 25-29 were rejected under 35 U.S.C. § 103(a) as unpatentable over Nakashiba and Tanaka et al. (U.S. Patent No. 5,506,429, herein “Tanaka”); and Claims 22 and 23 were rejected as unpatentable over Nakashiba, Tanaka, and Wakayama et al. (U.S. Patent No. 5,736,756, herein “Wakayama”).

In view of the outstanding rejections on the merits, independent Claims 2, 3, 7, 20, and 27 have been amended to recite that a contact has “a length longer than a width of one pixel” along an electric charge transfer direction. The claim amendments find support, for example, in Figure 4 and its corresponding description in the specification. No new matter has been added.

Briefly recapitulating, amended Claim 2 is directed to a solid image pickup apparatus that includes, *inter alia*, a pixel string and a contact having a length longer than a width of one pixel of the pixel string along an electric charge transfer direction of a CCD register. In a non-limiting example, Figure 4 shows the pixel string 1b and the contact 9a having the length (along the X direction of the drawing) longer than the width of the pixel of the pixel string 1b. Independent Claims 3, 7, 20, and 27 have been amended similar to Claim 2.

As disclosed in the specification at page 15, line 17, to page 16, line 11, one advantage of the claimed pickup apparatus is that the contact has the length longer than the width of one pixel, which effectively shields an external light that might affect the pixel.

Turning to the applied art, Nakashiba shows in Figures 2 and 6 an image pick-up device that has a first set of semiconductor regions 21 (asserted by the outstanding Office Action to correspond to the claimed pixels), contact holes 27, and a second set of semiconductor regions 23 (asserted by the outstanding Office Action to correspond to the claimed CCD).

However, the contact holes 27 of Nakashiba have both a length and a width smaller than any size of the semiconductor regions 21. Thus, Nakashiba does not teach or suggest that a contact has a length longer than a width of one pixel along a specific direction as claimed. The other applied references have been considered but do not cure the deficiencies of Nakashiba discussed above.

Accordingly, it is respectfully submitted that independent Claims 2, 3, 7, 20, and 27 and each of the claims depending therefrom patentably distinguish over Nakashiba, Tanaka, and Wakayama, either alone or in combination.

Consequently, in light of the above discussion and in view of the present amendment, the present application is believed to be in condition for allowance and an early and favorable action to that effect is respectfully submitted.

Respectfully submitted,

OBLON, SPIVAK, McCLELLAND,
MAIER & NEUSTADT, P.C.



Eckhard H. Kuesters
Attorney of Record
Registration No. 28,870
Remus F. Fetea, Ph.D.
Limited Recognition No. L0037

Customer Number

22850

Tel: (703) 413-3000
Fax: (703) 413 -2220
(OSMMN 06/04)

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